

Level 4 Potential Conservation Area (PCA) Report

Name South Fork Mule Creek

Site Code S.USCOHP*25872

IDENTIFIERS

Site ID 2282 Site Class PCA
Site Alias None

Network of Conservation Areas (NCA)

<u>NCA Site ID</u>	<u>NCA Site Code</u>	<u>NCA Site Name</u>
-		No Data

LOCATORS

Nation United States Latitude 395339N
State Colorado Longitude 1060911W

Quad Code Quad Name
39106-H2 Battle Mountain

County
Grand (CO)

Watershed Code Watershed Name
14010001 Colorado headwaters

SITE DESCRIPTION

Minimum Elevation	8,480.00 Feet	2,584.70 Meters
Maximum Elevation	8,645.00 Feet	2,635.00 Meters

Site Description

Community inhabits just over a 1 mile stretch of the South Fork of Mule Creek, a small second order tributary of the Williams Fork River. The creek is a type C channel with perennial hydrology. The drainage is dominated by tall shrubs with Geyer's willow (*Salix geyeriana*) being most abundant. The understory is dominated by mesic graminoids including beaked sedge (*Carex utriculata*) along old ponds and more mesic, open areas, and bluejoint reedgrass (*Calamagrostis canadensis*) along drying edges and under dense shrub cover. Some forb species are present throughout, but do not dominate, and become more prevalent downstream. Uplands are dominated by either climax, xeric lodgepole pine (*Pinus contorta*) forest or successional quaking aspen (*Populus tremuloides*) stands. Lodgepole have been heavily impacted by current beetle outbreak. Soils are silty clay loams over sandy clays with water at about 20 cm. Immediate uplands show evidence of intense grazing, with non-natives and soil compaction. Areas downstream within the community also show the negative grazing impacts of channel erosion, weedy species invasion, loss of native wetland species, soil compaction, and heavy grazing. Beaver activity is abundant upstream and there are many ponds. *Bufo boreas* has been documented in the drainage, but was not seen by ecologists during the 2005 field survey.

Key Environmental Factors

Key environmental factors influencing the area include spring flooding, perennial surface flows, slope, and sediment deposition.

Climate Description

Climate likely follows patterns typical of this region of Colorado, being generally xeric throughout the year with wet spring seasons and late summer "monsoons".

Land Use History

There is an old homestead present along the northwestern side of the drainage. The adjacent meadow may have been cultivated in the past and water may have been diverted for use by occupants.

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes Mapped Date 12/17/2005
Designer Jones, J.R.

Boundary Justification

Boundaries include approximately 1.25 miles of the South Fork of Mule Creek. Boundaries are drawn with a buffered upland area to encompass those ecological processes necessary to maintain site hydrology including perennial surface flows, upstream tributaries, and spring flooding. However, boundaries do not include all ecological processes influencing the site and activities upstream and along adjacent slopes such

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as improper grazing, water diversion, and development may impact site hydrology and biota.

Primary Area 320.38 Acres

129.65 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

This site is drawn for a good (B-ranked) occurrence of the globally vulnerable (G3?/S3) plant community, Geyer's willow (*Salix geyeriana*) / mesic graminoids shrubland.

Other Values Rank V3 - Moderate values

Other Values Comments

Site provides moderate other values including recreational values and open space. It appears to provide excellent hunting during the fall hunting season and good forage for grazing cattle.

LAND MANAGEMENT ISSUES

Land Use Comments

Predominant land uses include livestock grazing and recreational uses such as hunting and camping.

Natural Hazard Comments

Spring flooding may produce high flows along the creek.

Exotics Comments

Kentucky bluegrass (*Poa pratensis*), Timothy (*Phleum pratense*), and common dandelion (*Taraxacum officinale*) are all present within the drainage, but only at lower reaches where creek is open and accessible to cattle. Adjacent meadow harbors many exotic graminoids which may have been planted for forage.

Offsite

Off-site considerations include cattle grazing, exotic species, logging within watershed, beetle kill of lodgepole pine, and recreational use.

Information Needs

No Data

ASSOCIATED ELEMENTS OF BIODIVERSITY

<u>Element</u>	<u>State Scientific Name</u>	<u>State Common Name</u>	<u>Global Rank</u>	<u>State Rank</u>	<u>Driving Site Rank</u>
24890	<i>Salix geyeriana</i> / Mesic Graminoids Shrubland	Geyer's Willow/Mesic Graminoid	G3?	S3	Yes

REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
160903	Carsey, K., D. Cooper, K. Decker, D. Culver, and G. Kittel. 2003. Statewide wetlands classification and characterization: Wetland plant associations of Colorado. Prepared for Colorado Department of Natural Resources, Denver, CO by Colorado Natural Heritage Program, Fort Collins, CO.
193632	Culver, D.R. and Jones, J.R. 2006. Final Report: Survey of Critical Biological Resources in Grand County. Colorado Natural Heritage Program, Fort Collins, CO.
160140	Dorn, R. D. 1997. Rocky Mountain Region Willow Identification Field Guide. Renewable Resources R2-RR-97-01. Denver, CO: USDA, Forest Service, Rocky Mountain Region. 107p.
167224	Hurd, E.G., N.L. Shaw, J. Mastroguiseppe, L.C. Smithman, and S. Goodrich. 1998. Field Guide to Intermountain Sedges. U.S. Department of Agriculture, Rocky Mountain Research Station, Ogden, UT.
192747	Tweto, O. 1979. Geologic Map of Colorado, 1:500,000. United States Geological Survey, Department of Interior, and Geologic Survey of Colorado, Denver, CO.
193553	USDA, NRCS. 2005. The PLANTS Database, Version 3.5 (http://plants.usda.gov). Data compiled from various sources by Mark W. Skinner. National Plant Data Center < http://npdc.usda.gov/ >, Baton Rouge, LA 70874-4490 USA. Accessed 2005.
172684	Weber, W.A. and R.C. Wittmann. 2001. Colorado Flora: Western Slope, Third Edition. University Press of Colorado, Niwot, CO.

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ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 12/17/2005

Version Author Jones, J.R.

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